

Notice of Allowability

Application No.

10/619,915

Examiner

Hung Q. Dang

Applicant(s)

HURST ET AL.

Art Unit

2612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to applicant's proposed amendment dated 3/19/2007.
2. ☒ The allowed claim(s) is/are 3-5, 10-12 and 39-53.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material

5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment ✓
8. ☒ Examiner's Statement of Reasons for Allowance ✓
9. ☐ Other _____

DETAILED ACTION

1. This communication is in response to examiner's initiated examiner's amendment dated 3/19/2007.

EXAMINER'S AMENDMENT

2. An extension of time under 37 CFR 1.136(a) is required in order to make an examiner's amendment which places this application in condition for allowance. During a telephone conversation conducted on 3/19/2007, Marguerite E. Gerstner requested an extension of time for 3 MONTH(S) and authorized the Director to charge Deposit Account No. 18-0560 the required fee of \$1020 for this extension and authorized the following examiner's amendment. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows (See the attached proposed amendment submitted by applicant):

In the claims:

- Cancel claims 1-2, 6-9, 13-38 and 54-63.
- **Replace the entire claim 3 with:**
 - "A touch sensor, comprising:
 - a substrate having a resistive touch region;
 - a set of electrodes electrically coupled to the touch region; and

a plurality of band segments framing the touch region and having an intermediate resistivity between the resistivity of the electrodes and the resistivity of the touch region, wherein the electrodes are disposed between the band segments, and at least one of the band segments has a linear resistance that varies along its length and has a width that varies along its length, each band segment being continuous or quasi-continuous along at least a portion of its length.”

- **Replace the entire claim 4 with:**

“A touch sensor, comprising:

a substrate having a resistive touch region;

a set of electrodes electrically coupled to the touch region; and

a plurality of band segments framing the touch region and having an intermediate resistivity between the resistivity of the electrodes and the resistivity of the touch region, wherein the electrodes are disposed between the band segments, and at least one of the band segments has a linear resistance that varies along its length and has a width that varies along its length, each band segment being continuous or quasi-continuous along at least a portion of its length.”

- **Replace the entire claim 5 with:**

“A touch sensor, comprising:

a substrate having a resistive touch region;

a set of electrodes electrically coupled to the touch region; and

a plurality of band segments framing the touch region and having an intermediate resistivity between the resistivity of the electrodes and the resistivity of the touch region, wherein the electrodes are disposed between the band segments, and at least one of the band segments has a linear resistance that varies along its length and comprises an array of electrically conductive elements, the conductive elements having a spacing or size that varies along the length of the at least one band segment, each band segment being continuous or quasi-continuous along at least a portion of its length."

- **Replace the entire claim 10 with:**

"A dynamic touch sensor system, comprising:

a touch sensor that generates touch information in response to a touch and generates measurable information indicative of a given electrical characteristic in the touch sensor, the touch sensor comprising a substrate having a resistive touch region, a set of electrodes electrically coupled to the touch region, and a band framing the touch region and having a resistivity intermediate the resistivity of the electrodes and the resistivity of the touch region, wherein the band has a substantially non-uniform linear resistance, the band being continuous or quasi-continuous along at least a portion of its length, and having a width that varies along its length; and

control electronics coupled to the electrodes for receiving the touch information and measurable information from the touch sensor, wherein the control electronics uses an algorithm to determine the coordinates of the

location of the touch in the touch region based on the touch information, and modifies the algorithm based on the measurable information.”

- **Replace the entire claim 11 with:**

“A dynamic touch sensor system, comprising:

a touch sensor that generates touch information in response to a touch and generates measurable information indicative of a given electrical characteristic in the touch sensor, the touch sensor comprising a substrate having a resistive touch region, a set of electrodes electrically coupled to the touch region, and a band framing the touch region and having a resistivity intermediate the resistivity of the electrodes and the resistivity of the touch region, wherein the band has a substantially non-uniform linear resistance, the band being continuous or quasi-continuous along at least a portion of its length, and having a thickness that varies along its length; and

control electronics coupled to the electrodes for receiving the touch information and measurable information from the touch sensor, wherein the control electronics uses an algorithm to determine the coordinates of the location of the touch in the touch region based on the touch information, and modifies the algorithm based on the measurable information.”

- **Replace the entire claim 12 with:**

“A dynamic touch sensor system, comprising:

a touch sensor that generates touch information in response to a touch and generates measurable information indicative of a given electrical

characteristic in the touch sensor, the touch sensor comprising a substrate having a resistive touch region, a set of electrodes electrically coupled to the touch region, and a band framing the touch region and having a resistivity intermediate the resistivity of the electrodes and the resistivity of the touch region, wherein the band has a substantially non-uniform linear resistance, the band being continuous or quasi-continuous along at least a portion of its length and comprising an array of electrically conductive elements disposed on the substrate, the conductive elements having a spacing or size that varies along the length of the band; and

control electronics coupled to the electrodes for receiving the touch information and measurable information from the touch sensor, wherein the control electronics uses an algorithm to determine the coordinates of the location of the touch in the touch region based on the touch information, and modifies the algorithm based on the measurable information.”

Allowable Subject Matter

3. Claims 3-5, 10-12 and 39-53 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

The reasons for allowance of claims 39-53 have been indicated in the previous office action.

Regarding claims 3-5 and 10-12, applicant has suggested to rewrite the previously objected but allowable subject matters of the dependent claims 3-5 and 10-12 into independent forms as indicated above, and therefore, are allowed.

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

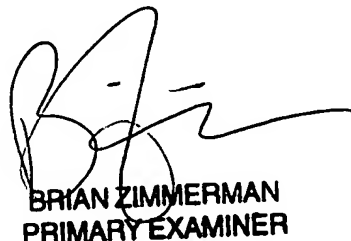
5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Q. Dang whose telephone number is (571) 272-3069. The examiner can normally be reached on 9:30AM-6PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber can be reached on (571) 272-7308. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Hung Q Dang
3/19/2007
H.D.



BRIAN ZIMMERMAN
PRIMARY EXAMINER